LG화학 나주공장 **1, SONGWAL-DONG, NAJU-SI, JEOLLANAM-DO, 520-130, KOREA(REP)** Fax : 85-061-330-1354 Tel : 82-061-330-1114	**Material Safety Data Sheet** (MSDS)	Report version	1.1
		Revision Date	2013.03.13
	Product name:OCTYL ALCOHOL	Date	2013.03.13
		Change List	

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

A.Product identifier : OCTYL ALCOHOL

B.Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Manufacture of chemical products, Manufacture of dyes and pigments, Manufacture of paints, varnishes and similar coatings, printing ink and mastics

Uses advised against : no data available

C.Details of the supplier of the safety data sheet

Company : LG Chem,Ltd.
Address : 1, SONGWAL-DONG, NAJU-SI, JEOLLANAM-DO, 520-130, KOREA(REP)
Emergency telephone : 82-061-330-1114~5

2. HAZARDS IDENTIFICATION

A.Classification of the substance or mixture : Flammable liquids:Category 3
Acute toxicity:Category 4
Acute toxicity:Category 4
Skin irritation:Category 2
Serious eye damage:Category 1

B.Label elements

Symbol

Signal Word : Danger

Hazard statements : Flammable liquid and vapour.Harmful if swallowed.Harmful in contact with skin.Causes skin irritation.Causes serious eye damage.

Precautionary Statements

precautionary : P210Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233Keep container tightly closed.
P240Ground/bond container and receiving equipment.
P241Use explosion-proof electrical · ventilating · lighting · (...) · equipment.
P242Use only non-sparking tools.
P243Take precautionary measures against static discharge.
P264Wash skin thoroughly after handling.
P270Do not eat, drink or smoke when using this product.
P280Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response : P301 + P312IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P303 + P361 + P353IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310Immediately call a POISON CENTER or doctor/ physician.
P322Specific measures (see supplemental first aid instructions on this label).
P330Rinse mouth.
P332 + P313If skin irritation occurs: Get medical advice/ attention.
P362Take off contaminated clothing and wash before reuse.
P370 + P378In case of fire : Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage : P403 + P235Store in a well-ventilated place. Keep cool.

Disposal : P501Dispose of contents/ container to an approved waste disposal plant.

C.Other hazards

: no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration	REACH registration number
2-ETHYL HEXAN-1-OL	104-76-7	100.0%	

4. FIRST AID MEASURES

A.following eye contact : Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.

B.following skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.
C.following inhalation	:	If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
D.following ingestion	:	Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
E.Notes to physician		
Symptoms	:	no data available
Risks	:	no data available
Treatment	:	no data available

5. FIRE-FIGHTING MEASURES

A.Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
B.Unsuitable extinguishing media	:	Do NOT use water jet.
C.Specific hazards during fire fighting	:	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
D.Special protective equipment for fire-fighters	:	Wear self contained breathing apparatus for fire fighting if necessary.
E.Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

A.Personal precautions	:	Keep people away from and upwind of spill/leak.
B.Environmental precautions	:	no data available
C.Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.
D.Additional advice	:	no data available

7. HANDLING AND STORAGE

A.Precautions for safe handling

Advice on general occupational hygiene	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Temperature class	:	no data available
Fire-fighting class	:	no data available
Dust explosion class	:	no data available

B.Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions	:	no data available
Advice on common storage	:	No materials to be especially mentioned.
Storage period	:	no data available
Storage temperature	:	no data available
Incompatible materials	:	Strong oxidizing agents Strong acids
Other data	:	No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A.Components with Workplace Parameters

no data available

B.Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

C.Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required.
Hand protection	:	Solvent-resistant gloves
Eye protection	:	Safety glasses Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.
Protective measures	:	no data available

9. PHYSICAL AND CHEMICAL PROPERTIES

A.Appearance		
Form	:	liquid
Colour	:	colourless
B.Odour	:	alcohol-like
C.Odour Threshold	:	0.138 ppm -
D.pH	:	no data available
E.Boiling point/freezing point	:	-76 °C
F.Initial boiling point/ freezing point	:	184 °C
G.Flash point	:	73 °C
H.Evaporation rate	:	600
I.Flammability (solid, gas)	:	no data available
J.Upper/Lower explosion limit	:	≤ 12.7 %(V) ≥ 0.9 %(V)
K.Vapour pressure	:	< 1 hPa
L.Water solubility	:	880 mg/l
M.Relative vapour density	:	no data available
N.Density	:	0.8325 g/cm3
O.Partition coefficient: n-octanol/water	:	log Pow: 2.9(25 °C)
P.Autoignition temperature	:	no data available
Q.Thermal decomposition	:	no data available
R.Viscosity	:	Dynamic9.7 mPa.s
S.Molecular Weight	:	130.22 g/mol

10. STABILITY AND REACTIVITY

A.Hazardous reactions	:	Vapours may form explosive mixture with air., Stable under recommended storage conditions. ,
B.Conditions to avoid	:	no data available
C.Incompatible materials	:	Strong oxidizing agents, Strong acids
D.Hazardous decomposition products	:	Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide, carbon dioxide irritating, corrosive and/or toxic gases

11. TOXICOLOGICAL INFORMATION

A.Exposuer information highly possibility : 피부 접촉, 눈 접촉

B.hazardous Information for health

Acute toxicity

Acute oral toxicity :

LD50 Oral: 3,290 mg/kg
Species: mouse
Method: OECD Test Guideline 401

Acute dermal toxicity :

LD50 Dermal: > 3,000 mg/kg
Species: rabbit
Method: OECD Test Guideline 402

Acute inhalation toxicity :

LC50: > 0.89 mg/l
Exposure time: 4 h
Species: mouse
Method: OECD Test Guideline 403

<= 5.3 mg/l

Skin corrosion/irritation :

Species: rabbit
Result: Severe skin irritation
Classification: Irritating to skin.
Method: OECD Test Guideline 404
Exposure time: 4 h

Serious eye damage/eye irritation :

Species: rabbit
Result: Irritating to eyes.
Classification: Irritating to eyes.
Method: OECD Test Guideline 405

Respiratory sensitization	:	Maximisation Test Classification: Contains no substance or substances classified as sensitising. Result: No hypersensitivity (skin)
Skin sensitization	:	no data available
Carcinogenicity	:	Not classifiable as a human carcinogen. Species: mouse Dose: 0 (water), 0 (vehicle), 50, 15 Exposure time: 24 months Number of exposures: 5 days/week Subsequent observation period: none Method: OECD Test Guideline 451
Germ cell mutagenicity	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Genotoxicity in vitro	:	in vitro assay Result: negative Method: OECD Test Guideline 476
Genotoxicity in vivo	:	in vivo assay Species: rat Dose:250, 500 and 1000 mg/kg Exposure time:5 d
Teratogenicity	:	Did not show teratogenic effects in animal experiments. No toxicity to reproduction
Target Organ Systemic Toxicant - Single exposure	:	Exposure routes: Ingestion Target Organs: Respiratory system Remarks: May cause respiratory irritation.
Target Organ Systemic Toxicant - Repeated exposure	:	Exposure routes: Ingestion Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	:	no data available

12. ECOLOGICAL INFORMATION

A.Ecotoxicity

toxicity to fish	:	LC50: 28.2 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow) flow-through test Analytical monitoring: yes Method: OECD Test Guideline 203
Toxicity to aquatic invertebrates	:	EC50: 39 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) static test Analytical monitoring: no Method: Directive 67/548/EEC, Annex V, C.2.
Toxicity to aquatic plants	:	EC50: 11.5 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) static test Analytical monitoring: no Method: Directive 67/548/EEC, Annex V, C.3.
Chronic toxicity to fish	:	no data available
Chronic to aquatic invertebrates	:	no data available

B.Environmental absorption and degradation

absorption	:	no data available
degradation(BOD)	:	no data available
degradation(COD)	:	no data available

C.organism condenasability

condenasability	:	no data available
Biodegradability	:	aerobic Result: Readily biodegradable. 68 % Method: MITI Test
D.Mobility	:	no data available

E.Additional ecotoxicological : no data available

13. DISPOSAL CONSIDERATIONS

A.Method fo disposal :
The organic ingredients can be incinerated in a suitable installation when in accordance with local regulations.

B.Advice on disposal : no data available

14. TRANSPORT INFORMATION

A.UN Number : 1987

B.Proper shipping name : Alcohols, N.O.S

C.Hazard class : 3

D.Packing group : 2

E.Marine pollutant : Not applicable

F.security arrangements on transport

In case of fire : See Section 5. of this document.

In case of accidential release : See Section 6. of this document.

15. REGULATORY INFORMATION

A.Information according to ISHA

Regulation	composition	Value Type	Value	Unit	Remark

B.Information according to TCCA and other chemical management regulations

Regulation	composition	Value Type	Value	Unit	Remark

C.Dangerous Substances Safety Management Act

Dangerous Materials Control Act (Fire Service Act) : Flammable liquids, Type 3 petroleums, Water insoluble liquid

D.Regulation of Disposal

Regulation	composition	Value Type	Value	Unit	Remark

controlled wastes under Korean Wastes Control Act	2-ethylhexan-1-ol				

E.Other regulations

Regulation	composition	Value Type	Value	Unit	Remark

16. OTHER INFORMATION

A.References (source of data) : (3)
F. Initial boiling point/ freezing point (4)
G. Flash point (4)
H. Evaporation Rate (1)
J. Upper explosion limit (1)
J. Lower explosion limit (1)
K. Vapor pressure (4)
L. Solubility in water (3)
N. Density (4)
O. Partitioning coef. octanol/water (4)
S. Molar mass (3)
R. Viscosity (4)
A. Hazardous reactions (1)
C. Substances to avoid (SDS) (1)
D. Decomposition products (1)
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Acute oral toxicity (4)
Acute dermal toxicity (4)
Acute Inhalation Toxicity (4)
Skin irritation (4)
Eye irritation (4)
Respiratory sensitization (4)
Carcinogenicity (4)
Genetic toxicity (4)
Genetic toxicity (4)
Teratogenicity (4)
Assessment STOT - Single Exposure (4)
Assessment STOT - Repeated Exposure (4)
toxicity to fish (4)
Toxicity to aquatic invertebrates (4)
Toxicity to aquatic plants (4)
absorption (4)
Biodegradation (2)

(1) U.S. National library of Medicine(NLM) Hazardous Substances Data Bank(HSDB); http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB
(2) REACH information on registered substances; http://apps.echa.europa.eu/registered/registered-sub.aspx
(3) The Chemical Database -The Department of Chemistry at the University of Akron; http://ull.chemistry.uakron.edu/erd/
(4) No source information
(5) International Uniform Chemical Information Database(IUCLID); http://esis.jrc.ec.europa.eu/

B.Date of initial publication : 2013.03.13

C.Revision number and date of the last modification

Revision number	:	1
Date of the last modification	:	

D.Remark :

Product should be handled, stored, and used in accordance with the generally accepted industrial hygiene practices and in conformity with all the applicable legal regulations.
The information provided herein is based on the state of our knowledge and is intended to describe the product with regard to the requirements of safety.
It should, therefore, not be construed as guaranteeing specific properties.